

ENGINEERING HERITAGE RECOGNITION PROGRAM

Proposal to nominate
Municipal Sewer Vent
as an Item of Engineering Heritage Interest

Item Name:	Municipal Sewer Vent		
Other/Former Names:	NA		
Locality:	Sydney City		
Address:	Elizabeth Street (corner of Bathurst Street), Sydney.		
Co-ordinates	Lat: -33.874593064587614 Lon: 151.2098461160961		
Current Owner:	Sydney Water		
Original Owner:	City of Sydney		
Current use:	Ventilation of the Bennelong stormwater sewer		
Former use:	Ventilation of Sydney's first planned sewerage system.		
Proposed use:	NA		
Item Condition:	Good		
Designer:	Unknown		
Builder:	Unknown		
Started:	Unknown	Completed:	1857
History:	<p>As Sydney developed, its watercourses became open sewers, and the resulting pollution forced construction of Sydney's first sewerage system.</p> <p>Edward Bell was appointed City Engineer in 1856 and one of his early challenges was the development of Sydney's sewerage system. The system he planned consisted of five principal outfall sewers discharging to the harbour at Blackwattle Bay, Darling Harbour, Sydney Cove, Bennelong Point and Woolloomooloo; the system was completed in 1857.</p> <p>At the highest point of the system – the corner of today's Elizabeth and Bathurst Streets on the edge of Hyde Park, a vent shaft was built to eliminate noxious gases from the sewer. It was of brick and sandstone, and disguised as an Egyptian style obelisk (modelled on Cleopatra's Needle, now situated on the Thames Embankment, London). The obelisk was the first and only major sewer vent and is now one of the oldest extant items of infrastructure connected with Sydney city's sewerage system.</p> <p>The obelisk provided a model on which the rest of the city's tall brick vent shafts were based. Eventually the majority of these structures were replaced with smaller steel tube vents at more regular intervals. A Sydney Morning Herald article documenting its construction on 10/9/1857 noted 'on the pedestal a fireplace will be constructed, and here a fire will be continually kept burning for the purposes of rarefying the air and consuming the noxious gases as they escape upwards'. There is no evidence of this flame being lit. Rather, it appears that water vapour was</p>		

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	<p>used to smother gases exiting the vent, as a small pipe can be seen protruding from the ground near the base of the obelisk on the eastern side.</p> <p>Plans of the Obelisk and surrounds, c1886 show the 1876 stone dwarf wall, with six smaller obelisks surrounding the vent shaft. It is unknown whether these smaller obelisks were constructed as part of Hyde Park improvements or when the Obelisk was originally constructed, in 1857. It is believed by some that these smaller obelisks formed a sundial.</p> <p>The obelisk itself has remained largely intact, however there have been various maintenance works including the replacement of the copper vent and changes to the configuration of the obelisk's surrounds.</p> <p>In the early 1900s, Elizabeth Street was widened to alleviate traffic congestion. The western face of the sandstone obelisk base was shaved off around 1917 and two of the smaller obelisks were removed, possibly as part of these works. By the 1950s all of the smaller obelisks had been removed.</p> <p>Within a few years of construction of the sewerage system there was an uproar at the pollution it caused of the Harbour, that forced restructuring of the system, with some of the original sewers being converted to stormwater drainage.</p> <p>Sydney's sewers were later diverted to cliff-face outfalls at North Head, Bondi and Malabar, but the pollution they caused of the ocean and beaches, eventually forced construction of deep-water ocean outfalls at those places; these commenced operating in 1990-91.</p>
Description:	<p>The sewer vent is square in plan and is of brick and sandstone construction, in the form of an Egyptian style obelisk.</p> <p>The tapered sandstone base is about 10m high, at the top of which is a projecting plinth. The tapered 'needle' rises from the plinth and is surmounted by a copper vent.</p> <p>On the plinth, the base of the needle is surrounded by double-bodied sphinxes (two on each side) with their heads at the corners. '</p> <p>An inscription on the sandstone base reads: 'Erected A. D. 1857. George Thornton Mayor'</p>
Engineer:	<p>Edward Bell was an English trained civil engineer; he had been born and educated in England, serving 'his articles working on the drainage of fens and on municipal water supplies in Britain and Holland'. His career had a 'particular focus on drainage, water provision of sewerage works' in several counties. He arrived in Sydney on 25 January 1856, and almost immediately was appointed City Engineer.</p> <p>One of Bell's early challenges was the development of Sydney's sewerage system, and as part of this, he incorporated a vent shaft disguised as an Egyptian-style obelisk.</p>
Heritage Significance:	<p>Historical significance: The obelisk was the first and only major sewer vent, and is now one of the oldest extant items of infrastructure connected with Sydney city's first sewerage system.</p> <p>Historical individual: The sewer vent is associated with Edward Bell who was appointed City Engineer of Sydney City Council in 1856 and who devised and constructed Sydney's first sewerage system.</p> <p>Creative or technical achievement: The Obelisk Vent was an ambitious achievement at the time of construction owing to its utilitarian purpose.</p>

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	<p>As an Egyptian-style obelisk the sewer vent initially attracted much acclaim as a monument - until citizens became aware of its true purpose. Today it is a landmark feature on the edge of Hyde Park.</p> <p>Social significance: The sewer vent is evidence of Sydney's first sewerage system which eventually, contributed immensely to improvement in the health of the community.</p> <p>Rarity: The Egyptian-style obelisk sewer vent is the only one of that kind. It is also the last-remaining of the original brick sewer vents.</p>		
Webpage Summary:	<p>As Sydney developed, its watercourses became open sewers, and the resulting pollution forced construction of Sydney's first sewerage system.</p> <p>The system was planned by City Engineer Edward Bell and consisted of five principal outfall sewers discharging to the harbour at Blackwattle Bay, Darling Harbour, Sydney Cove, Bennelong Point and Woolloomooloo; the system was completed in 1857.</p> <p>At the highest point of the system – the corner of today's Elizabeth and Bathurst Streets on the edge of Hyde Park, a vent shaft was built to eliminate noxious gases from the sewer. It was of brick and sandstone and disguised as an Egyptian style obelisk. The obelisk was the first and only major sewer vent and is now one of the oldest extant items of infrastructure connected with Sydney city's first sewerage system.</p> <p>The obelisk itself has remained largely intact, however there have been various maintenance works including the replacement of the copper vent and changes to the configuration of the obelisk's surrounds.</p> <p>Within a few years of construction of the sewerage system there was an uproar at the pollution it caused of the Harbour, forcing restructuring of the system, with some of the original sewers being converted to stormwater drainage.</p> <p>Sydney's sewers were later diverted to cliff-face outfalls at North Head, Bondi and Malabar, but the pollution they caused of the ocean and beaches, eventually forced construction of deep-water ocean outfalls at those places; these commenced operating in 1990-91.</p>		
Engineering Theme:	Water: Wastewater		
Heritage Listing:	NSW State Heritage Register: SHR ID: 01642, 2005 Council of the City of Sydney: Listing Type: LEP #1752		
References/Sources:	NSW State Heritage Register: SHR ID: 01642, 2005		
Nominated by:	Michael Clarke		
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EHA Branch:	Sydney	Nomination Date:	21 November 2023

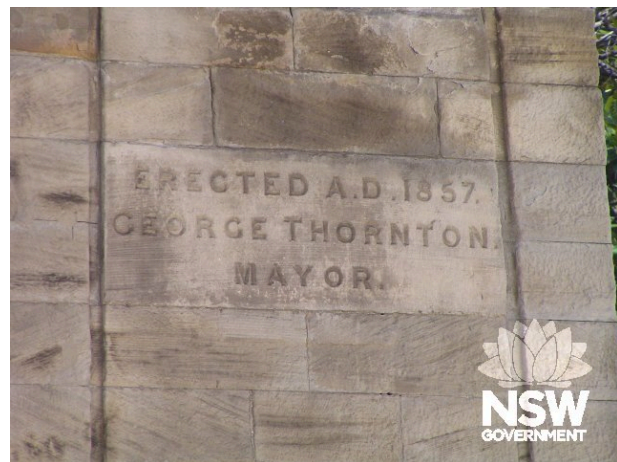
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Egyptian-style sewer vent.
Michael Clarke



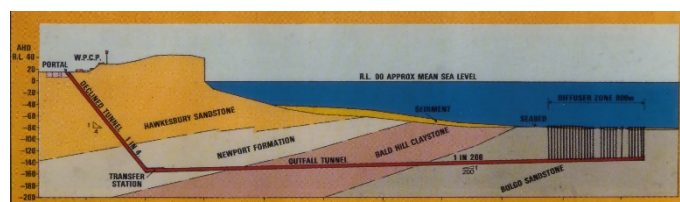
Double-bodied sphinxes



Bennelong sewer unearthed at Sydney Opera house. *Sydney Morning Herald*



Harbour pollution from Bennelong
sewer. *Punch magazine* 1869.



Malabar deep water sewerage ocean outfall.
Sydney Water